A1 cont. reflection characteristic. A liquid crystal of this kind selectively reflects light of a wavelength corresponding to the helical pitch of liquid crystal molecules as shown in expressions (1) and (2) below (circular dichroism).--

Kindly replace the paragraph beginning on Page 5 line 9 with the following:

--A video signal of a wavelength of 1.55μm and an audio signal of a wavelength of A2 1.3μm are superimposed and input from the direction of the arrow A to the optical waveguide layer 2. The video signal is selectively reflected by the filter element 5 to be emitted in the direction of the arrow B. The audio signal is transmitted through the filter element 5 and then impinges on the photodiode 11 in the direction of the arrow C. On the other hand, an audio signal of a wavelength of 1.3μm is supplied from the laser diode 12 from the direction of the arrow D, and then transmitted through the filter element 5 in the direction of the arrow D, and then transmitted through the filter element 5 in the opposite direction, to be emitted in the direction of the arrow A'. The separation of the paths according to wavelength is because ϕ_2 (signifying the angle at which the video signal input from the direction of the arrow A is reflected by the filter element 5 to be emitted in the direction of the arrow B is relatively large. It is large enough that the 1.3 μm wavelength light coming from the laser diode 12 goes in the direction of arrow A' and not toward arrow B. While, because ϕ_1 of Figure 1 is relatively small, the audio signal input from the direction of the arrow A and transmitted through the filter element 5 can go not only to the laser diode 12 but also to the photodiode 11.--

IN THE CLAIMS:

Kindly replace claims 4-6, 13, 18, 19 and 21 as follows:

4. (Amended) An optical filter device according to claim 1, wherein said liquid crystal layer is formed by stacking a clockwise polarized layer and a counterclockwise polarized layer.

5. (Amended) An optical filter device according to claim 2, wherein said liquid crystal layer is formed by stacking a clockwise polarized layer and a counterclockwise polarized layer.

6. (Amended) An optical filter device according to claim 3, wherein said liquid crystal layer is formed by stacking a clockwise polarized layer and a counterclockwise polarized layer.

13. (Amended) An optical filter device according to claim 12, further including a photodiode, a laser diode, and a monitor photodiode on the silicon substrate.

18. (Amended) A method of producing an optical filter element, wherein said filter element includes an ultraviolet curing liquid crystal layer having a twisted structure in which a helical pitch after curing reflects light of a predetermined wavelength, said method comprising:

providing a substrate;

placing a spacer material on a mirror-polished surface of said substrate;

placing said ultraviolet curing liquid crystal material on said substrate adjacent to said spacer material;

pressing a UV-transparent substrate on said ultraviolet curing liquid crystal material to form a film; and

irradiating said ultraviolet curing liquid crystal material with ultraviolet rays.

19. (Amended) A method according to claim 18, further comprising cutting said film into a given size; and peeling said film off from said substrate.

21. (Amended) A method according to claim 19, further comprising adding an additional layer of liquid crystal film on said film, before said curing step, including adding additional liquid crystal onto said film.

Kindly add the following new claims:

--23. (New) An optical filter device according to claim 1, wherein said liquid crystal layer has a cholesteric phase.

24. (New) Optical filter device in accordance with claim 23, wherein said liquid-crystal layer is a chiral nematic liquid crystal.--